

PATENT ABSTRACTS OF JAPAN

(11)Publication number : 04-132681

(43)Date of publication of application : 06.05.1992

(51)Int.Cl.

C30B 25/14
C30B 29/40
H01L 21/205

(21)Application number : 02-254346

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(22)Date of filing : 26.09.1990

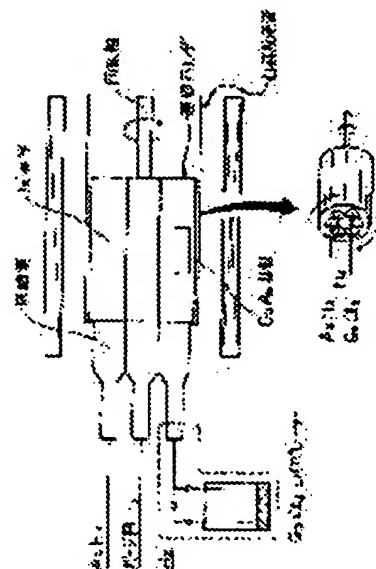
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(54) DEVICE FOR EPITAXIAL GROWTH OF COMPOUND SEMICONDUCTOR

(57)Abstract:

PURPOSE: To shorten the changeover times of raw material gases and allow crystals to continuously grow on many substrates by disposing plural raw material gas-feeding chambers in the upstream end of a reaction tube and successively feeding the raw material gases into the plural growth chambers disposed at the tip of a rotation shaft.

CONSTITUTION: For example, feeding chambers for the gases of AsH₃, gas- purging H₂ and GaCl₃ are disposed at the upstream end of the quartz reaction tube of a device for the growth of a GaAs atomic layer by a chloride method. A cylindrical substrate holder is disposed at the tip of a rotation shaft penetrated through the downstream end of the reaction tube. Six cylindrical growth chambers are formed in the substrate holder, and GaAs substrates are received in the respective growth chambers. After the substrates are heated to a growth temperature, the rotation shaft is stepwisely rotated, and the gases of AsH₃+H₂, H₂, and GaCl₃+H₂ are changed with each other in a short time and successively fed into the growth chambers to form GaAs atomic layers on the substrates.



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[Date of request for examination]

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the
examiner's decision of rejection or application
converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of
rejection]

[Date of requesting appeal against examiner's decision
of rejection]

[Date of extinction of right]